

## Abstract

To make it possible to detect that a detection object reaches a position at a predetermined distance. A sensor and a sensor are located on a substrate. The sensors each include a pyroelectric infrared sensor element and a cover member that has a through hole and covers the sensor element. The sensor elements each are constructed such that the detection object can be detected only through the through hole, so that the sensor have the same predetermined directivity. The sensors are located such that detection areas of the respective sensors cross each other. Each of the sensors detects an infrared ray having a frequency emitted from a skin of a human and outputs a detection signal. When the detection object reaches the intersection of the detection areas of the sensors, the detection signals are simultaneously obtained from both the sensors.